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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.             | CONFIRMATION NO.       |
|---|-------------|----------------------|---------------------------------|------------------------|
| 10/729,261  | 12/05/2003  | Robert R. Rice       | 000352-804                      | 1178                   |
| 26294 7590 11/15/2007<br>TAROLLI, SUNDHEIM, COVELL & TUMMINO L.L.P.<br>1300 EAST NINTH STREET, SUITE 1700<br>CLEVEVLAND, OH 44114 |             |                      | EXAMINER<br>VAN ROY, TOD THOMAS |                        |
|   |             |                      | ART UNIT<br>2828                | PAPER NUMBER           |
|   |             |                      | MAIL DATE<br>11/15/2007         | DELIVERY MODE<br>PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/729,261

Applicant(s)

RICE ET AL.

Examiner

Tod T. Van Roy

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**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 18 October 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attached.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments filed 10/18/2007 have been fully considered but they are not persuasive.

The following will comprise the Applicant's argument (*briefly*) and the Examiner's opinion. (*note: expansion of some of the Examiner's previous arguments in view of the newly filed Applicant's arguments, as the After Final arguments are largely unchanged, the Examiner's arguments are only slightly, if at all, modified*)

*Sasaoka teaches the fiber to have a Raman Gain coefficient of  $Gr/A_{eff}$  of .005, which would be uniform, and therefor not have a radially dependent value.*

The Examiner agrees that Sasaoka teaches this value at [0026], but notes that this is the minimum value (.005 or more). If this is only a minimum value at each wavelength for a given area, it does not mean that the value is uniform across the diameter of the fiber. In addition, figure 1b is relied upon to further show the refractive index changes made via the GeO<sub>2</sub> doping. This index profile is consistent with radial doping and provides additional evidence to the presence of the claimed Raman gain profile. Both the teaching of the value and the profile found in figure 1b work to demonstrate the necessary occurrence of the Raman gain profile.

*The Sasaoka reference does not teach favoring lower order modes over higher order modes as the reference teaches a single mode fiber.*

The Examiner agrees that Sasaoka teaches a single mode fiber, but motivates the use of a multimode fiber by incorporating Rice. Sasaoka's doping, plus Rice's

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multimode fiber, gives the mode discrimination function. In addition, col.2 lines 48-57 of Rice teach the use of favor lower order modes to higher order modes in order to incorporate a multimode pumping source.

*Sasaoka teaches radially doping for refractive index profile adjustment, but not for Raman gain profile adjustment.*

The Examiner agrees that Sasaoka teaches the dopant profile (fig.1b) to be radially dependent and to be used to affect the refractive index. However, due to Sasaoka's use of GeO<sub>2</sub>, the dopant profile would also inherently adjust the Raman gain profile. The doping taught in fig.1b is radially dependent, and shows increased refractive index at the center point of the fiber. This indicates heavier doping at the center with radially decreasing amounts away from the center. The Raman profile would inherently follow this pattern as well.

The Examiner also notes [0006], [0016] (lines 1-7), and fig.2 of the Applicant's specification that teaches doping using GeO<sub>2</sub> in the same basic pattern of Sasaoka resulting in the Raman gain profile.

*Claim 2 requires two different dopants.*

The Examiner does not agree. Claim 2 states that a transparent oxide must be present which affects the refractive index (Sasaoka teaches GeO<sub>2</sub>, fig.1b). The claim further states a dopant must be present that affects the Raman gain profile. The claim does not make clear that the transparent oxides cannot perform both functions. Therefor, Sasaoka's use of GeO<sub>2</sub> fulfills the requirements of the claim.

The remainder of the presented arguments is largely directed to the points addressed above.

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tod T. Van Roy whose telephone number is (571)272-8447. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minsun Harvey can be reached on (571)272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TVR

  
**MINSUN OH HARVEY**  
**PRIMARY EXAMINER**